

AMENDMENT UNDER 37 C.F.R. § 1.111
Appln. No. 10/019,560
Docket No. Q67729

REMARKS

Claims 1-12 are all the claims pending in the application. Claims 1 and 9 are independent claims.

Claim Rejections Under 35 U.S.C. § 112

Claims 3-5, 11, and 12 are rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite. Although Applicants believe that the scope of subject matter claimed is clear, as a path of least resistance, Applicants have made stylistic changes to the claims without changing the scope of claimed subject matter. In view of these amendments, Applicants respectfully request the Examiner to withdraw the rejection.

Claim Objections

The Examiner has objected to claims 1 and 9. As such, Applicants have made stylistic changes to these claims without changing the scope of subject matter claimed.

Allowable Subject Matter

Applicants note with appreciation that the Examiner has indicated that claim 12 would be allowable if rewritten in independent form including all of the recitations of the base claim 9 and rewritten to overcome the 35 U.S.C. § 112 rejection. However, Applicants hold in abeyance the rewriting of claim 12 until the Examiner has had the chance to consider the remarks below with respect to claim 9.

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Claim Rejections Under 35 U.S.C. § 102 and §103

Claims 1-4, 6, 7, and 9-11 are rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Olson (US 6,032,818). Claim 5 is rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Olson in view of Bonerb (US 5,344,048).

With respect to independent claims 1 and 9, Applicants respectfully traverse this rejection at least because Olson does not teach or suggest all of the claim recitations. For example, Olson does not teach or suggest the claimed container or method for filling a container in which a restraining member maintains a substantially fluid tight separation of the first and second compartment until a predetermined pressure is achieved in the first compartment.

According to the present invention it is an object to provide a container and method that allows rapid filling a rigid outer container with a flexible bag without parts of the bag prematurely becoming lodged between the walls of the rigid outer container (pages 1, lines 26-28). It was found that for regular flexible containers, that when inserted in a bottle-shaped rigid outer container through the neck of said outer container in a rolled-up fashion, upon filling the unfolding causes parts of the bag to rapidly fill and to become lodged against the walls of the outer container at the improper axial position. Hereby, not all parts of the outer container are filled and very high stresses can be developed especially on the neck part of the flexible container, which may cause rupture of the flexible container from the filler cap, which is indicated with reference numeral 5 and which is made of a rigid material.

The applicant has discovered that the problem of the flexible bag making radial contact with the outer container before its full axial extent is reached can be solved by providing one or more chambers in the bag which are successively filled.

This is achieved by providing a restraining member (such as the non-limiting embodiment of adhesive tapes 23, 24 shown in Fig. 4-6) or a means which maintains folded parts of the container in a sealed position up to a certain fill pressure. Alternatively, the restraining member may be comprised of a seal between the front and back material of the container or an adhesive connection of the container material.

In the non-limiting example shown in Fig. 4-6, the central compartment 17 of the container is first filled while remaining clear from the side walls of the container. Thereby, a central column reaching from bottom to top of the container is first achieved so that the full axial dimension of the container is obtained. When the fill pressure exceeds a certain threshold, the tapes become undone and chambers 18, 19 of the container will be placed in fluid communication with the central chamber 17 so that the side chambers are filled and the wall material of the container will in a radial direction be placed in the proper contact position against the container wall. Instead of adhesive tapes 23, 24, seals or adhesive along the fold lines 13, 14 in Fig. 3 and 4 can be applied.

In the non-limiting embodiment shown in Fig. 7 and 8 again adhesive tapes, seals or adhesive on the film material can be used as restraining members. In Fig. 9 inwards V-shaped folds are applied, the restraining members being formed by glue points 40, 41.

Olson has similar objectives as the present invention and also solves the problem of obtaining a complete filling of an outer rigid container by a flexible inner bag while solving the problem of preventing the risk that a fluid, especially if it is viscous, does not flow to the lowest portion of the liner and block certain parts causing partial filling (Olson, column 1, lines 43-56).

However, Olson does not teach or suggest a container or method for filling a container in which *a restraining member* maintains a substantially fluid tight separation of the first and second compartment until a predetermined pressure is achieved in the first compartment. Instead, the rectangular linings in Olson result in difficulties in filling the corner portions thereof and the liner being unable to adjust optimally to the parallelepiped-shaped container. One of the measures taken are welds 43 that extend at an angle 45° with respect to the outer edges forming two pairs of lugs 44 sealed against the inside of the liner 1 which facilitates the filling of the inner packing 10 (Olson, column 4, lines 7-14). These, however, are not restraining members.

In addition to sealing off the corner parts, which is a permanent sealing and which is not ruptured at the predetermined filling pressure to subsequently release the chamber 44 after filling of the central chamber, as is the case in the present invention, a special folding pattern using a flexible, tube-shaped cover 45 surrounding the folded inner packing 10 as shown in Fig. 6d and in Figs. 9a-9f, is used in Olson. The outer tube 45 continuously releases flexible container material toward the bottom of the box-shaped outer container until the cover 45 is forced off the liner 1 and ends up around the opening 6, see Fig. 9e. This is explained on column 5 of Olson, lines 44-64.

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In contrast to the continuous supply of flexible container material from a sleeve 45, which continuous supply is facilitated by a special folding pattern allowing filling of a rectangular box so that all wall parts are in contact with the flexible inner container, the present invention utilizes a different concept. According to the present invention first a central part of the container is filled, while other parts remain out of contact with the walls of the container by virtue of outer parts of the flexible container being temporarily closed by the restraining member (tapes, adhesive or welds). After completely filling of the central compartment, the fill pressure rises in said compartment rupturing the restraining member and next filling the side compartments which then get into contact with the rigid walls of the outer container, warranting a complete filling.

Another advantage which is obtained by release of the restraining members it that this gives rise to a variation in the fill pressure which can be detected as shown in Fig. 10 and which forms a quality indicator for complete and proper unfolding of the inner flexible container.

In view of the above, Applicants respectfully request the Examiner to withdraw the rejection of claims 1 and 9.

In addition, Applicants respectfully request the Examiner to withdraw the rejection of claims 2-4, 6-8, 10, and 11 at least because of their dependency from one of claims 1 and 9. Furthermore, Applicants respectfully request the Examiner to withdraw the rejection of claim 5 at least because of its dependency from claim 1 and because Bonerb (alleged by the Examiner as showing a container with adhesive tape) does not cure the deficiencies in Olson discussed above.

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Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

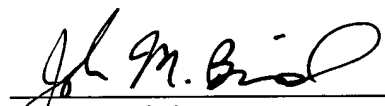
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